

## Highlights

- Developed a Slack plugin application that helps combat abusive conduct at a workplace backed by a Multi-Label classifier using Neural Net. Currently used by the IBM research team.
- Developed Learning Management Platform for my undergrad University in which lead & mentored a team of 5 engineers.
- My UI & UX interface designs that have been featured on Dribbble.
- Ideated a Startup at Qualcomm Labs incubator for which was selected in the top 10 startup ideas out of thousands of applicants.
- Won the Gold medal at the International level in Football representing India at the South Asian Games 2014.
- Submitted a research paper in IEEE on Federated Learning - Privacy Enhanced Collaborative Machine Learning.

## Experience

**3D Room Space, LA | Lead Software Engineer** • May 2020 - Present

- Leading the Core-Engineering team of 5 people. Building the core services for users and landlords to view and post listings.
- Dockerized all microservices and deployed into serverless container environment.

**Tech Stack:** GCP Cloud run, GKE | Node, GraphQL | React Native, React, Gatsby

**Freelance Contractor** • May 2020 - July 2020

- **Project Bacchus, NY:** Consulted to move to a serverless architecture and built Home Feed, in-app messaging & dashboard.
- Built a CLI tool for a client to tag and push docker images to multiple Container Registries with multiple login management integrating with their internal system.
- **Wetherbee's Unofficial:** Refactored old React-Native app and added features to take Quiz, View Flashcards, Watch Learning content, take notes. Also created Admin panel using Django to curate content.

**A D Patel Institute of Technology | Software Engineer**

August 2016 - September 2018

**Learning Management Platform** • August 2017 - September 2018

- Envisioned, Designed & Engineered suite of applications that solved the problems in existing paper-based solution of Scheduling, Information sharing, Evaluations, Asset Management, etc.
- Lead & mentored team of 5 engineers, We engineered cross-platform backend services which are architected to scale on low-end systems.
- Took it as a personal challenge to design best-in-class UI & UX interface. App designs have been featured on Dribbble. <http://goo.gl/G2KiE2>
- In-house Designed & 3D printed biometric fingerprint devices that facilitates classroom authentication centrally.
- Deployed an in-house private Cloud cluster through OpenStack providing 250% more computing power while being 40% cheaper than the previous solution.

**Tech Stack:** React, React Native, Electron | NodeJS, Golang | MemSQL, Aerospike.

**ADIT Alumni Hub** • <http://alumni.adit.ac.in> • August 2016 - March 2018

- Designed & Developed a social platform from scratch to allow Alumni's to reconnect with each other, discover other alumni's in same region and profession, share jobs & events.

**Tech Stack:** React & LEMP Stack

## Skills

### FrontEnd

JavaScript - React, React-Native, Electron, JQuery, WebAssembly  
Android, HTML5, CSS.

### BackEnd

NodeJS, PHP, Python, Java, C++.  
Database: SQL : MySQL, Postgre.  
NoSQL : MongoDB, Redis, Aerospike

### Tools & Libraries

Compute & Networking: OpenStack distributed cluster, PfSense.  
DevOps: GCP, AWS, Docker, Kubernetes, CI/CD  
GraphQL, Jupyter Notebook.

### Design

Sketch, Illustrator, Autodesk Inventor, Keyshot, Principle, Figma, Photoshop.

## Education

**SJSU - San José State University**

Pursuing Masters in Computer Science

Dual Specialization: Enterprise Software Technologies & Data Science

Jan 2020 - Dec 2021

**Gujarat Technological University**

Bachelor of Engineering - Information Technology

Graduated First Class with distinction

Jul 2015 - June 2019

### **Smarq Technologies | Founded a Smart Home startup** • Nov 2015 - May 2016

- Envisioned & Designed a tightly-knit ecosystem of smart sensors capable of various automation sequences within a home based on local location of user.
- USP: Smarq Sense - A smart system that generates ever-adapting automation sequences for each user.

### **Purva Couture | Software Developer** • April 2015 - December 2015

Designer Fashion Studio

- Single-handedly developed a Business Operations system that managed from Sales to Production to Deliveries handling 700+ clients & revenue of \$1M+.

## Projects

### **Reverse proxy to increase downlink bandwidth** • Aug 2019 - Sep 2019

- Developing a reverse proxy that substantially minimizes the effect of Bandwidth Delay Product on TCP Throughput by buffering the file on multiple connections.
- Preliminarily achieved 8x improvement in streaming on intercontinental bandwidth with BBR congestion control.

### **Federated Learning - Privacy Enhanced Collaborative Machine Learning** • Jan 2019 - Aug 2019

- Developed Federated Averaging Algorithm optimized for Large-Scale LSTM-CNN when the input consists of large number of small-sized updates in Homomorphic Encryption.
- Submitted a research paper in IEEE Journal

### **Finalists at Robocon Asia 2017 - MIT, Pune** Dec 2016 - Mar 2017

- Collaborated in a team of 20 members from diverse domains and applied problem-solving skills combining areas of multiple domains.
- Developed custom firmware & Java application for a fully autonomous robot.

### **3D Indoor GPS** June 2017

- Implemented a 3D Indoor GPS solution using UWB to automate lights based on location context.
- Achieved accuracy of avg. 27cm considering wall interference.